

ANISOTROPIC ETCHING OF OPTICAL COMPONENTS

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part to U.S. Patent Application Serial No.

5 09/859,593, filed May 17, 2001, ^{was abandoned}

This application claims priority to United States Provisional Patent Application
Serial Number 60/293,615, filed May 25, 2001.

This application claims priority to United States Provisional Patent Application
Serial Number 60/297,208, filed June 8, 2001.

10 *Field of the Invention*

This invention relates to integrated circuits, and more particularly to integrated
circuits including both optical and electronic aspects.

Background of the Invention

15 In the electronic integrated circuit industry, there is a continuing effort to increase
device speed and increase device densities. Optical systems are a technology that promise to
increase the speed and current density of integrated circuits. Various components of optical
and electronic integrated circuits can be discrete elements made from glass or clear plastic or
alternatively can be formed from a semiconductor material, such as silicon.

20 The majority of the semiconductor industry efforts, including a massive number of
person-hours of research and development, has focused its efforts on silicon-based electronic
circuits in attempting to make electronic circuits faster and more reliable. While other
semiconductor technologies such as Ga-As have shown great promise, the emphasis on the
research in development in Silicon has reduced the rate of development of the other
semiconductors. This concentration on silicon devices has been rewarded by quicker and
25 more reliable silicon devices, however the rate improvement of silicon-based device speed